

FIG. 1

ATGTTCTTCTACTTCATTCACTGTTCTGATCAATGTCAAAGATTTGCACTGACTCAA
GGTAGCATGATCACTCCTTCATGCCAAAAGGATATTTCCCTGTGGGAATCTTACCAAG
TGCTTACCCCGAGCTTCACTGTGATGGCAAGGATGACTGTGGAACGGGGCGGACGAA
GAGAACTGTGGTACACTAGGGATGGCGACCATATTTGCCACAGTCATGAAATGCT
AACAGCGTGGCCTTAACACAGGAGTCTTCTAAAACAGTATCCACAATGCTGTGACTGC
AAAGAAAATGAAATGGATGTGAAATGGTCAACTTAAAGTCTGTGCCATGATTCTAAC
AATGTGACATTACTGTCTCTTAAGAAAAACAAACAGTCTCCAGATAAAGTTTC
ATCAAATACACAAAACCTAAAGATATTCAGCATAATTGCAATTAGACACATATCC
AGGAAAGCATTGGATATGTAATCTGCAAATATTATCTCAACCACAATGCT
ACAACCCCTCAGACCTGGAATATTCAAAGACTTACATCAGCTAACTTGGCTAATTCTAGAT
GACAATCCAATAACCAGAACCTACAGCGCTTACGGGATTAATTCTGTGTTTC
CTGCTATGGTAATAACTACTAGAACGCTCTCCAAAGCAGATGTGCCCCAATGCT
CAAATGAAAGGCAATAGAATAAAGTATCTCACAAATTCTACGTT
CTGTCGTGCGATTGCTCACAGTGTGTTCTGCCAGAAATCAAATTGGTTTGTCCA
GAGAAGACATTTCTCATTAAGAACCTTACAGGAGACTGGATCTGTCTAGCAATACGATA
ACGGAGCTATCACCTCACCTTAAAGACTTGAAGCTTACAAAAGCTGAACCTGTCA
TCCAATCCTCTTATGTATCTTCACAAGAACAGTTGAAAGTCTTAAACAACCTCAGTCT
CTAGACCTGAAAGGATAGAGATTCAAATATAAACACACGAATGTTCAACCCATGAAG
AATCTTCTCACATTATTCAAACACTTCGATACTGCTCTATGCTCCCCATGTCCGA
ATATGTATGCCCTTGACGGACGGCATTCTCATTGAGGACCTCTGGCTAACAAATATC
CTCAGAATATTGTCTGGTTAGCTTACCTGCTTGGAAATCTTTGTCT
GGCATGAGATCTTCATTAAAGCTGAAACACTCACGCTATGTCATCAAATCCTT
TGTTGTGCTGATTGCTGATGGGTGTTACTTGTCTTGGCATTTGATATAAAA
TACCGAGGGCAGTATCAGAAGTATGCCCTGCTGGATGGAGAGCGTGCAGTGCAGCCTC
ATGGGGTCTGGCATGCTGCCACCGAAGTCTCTGCTACTGACCTACTGACT
TTGGAGAAGTCCCTGGTCAATTGCTTCCCTCAGTAACATTGACCTGGAAAACGGCAG
ACCTCAGTCATCCTCATTGATGGATGGGGATTTTAATAGCTGTAATTCCATT
TGGAATAAGGATTATTTGGAAACTTTATGGAAAAATGGAGTATGTTCCCACTTAT
TATGACCAACAGAAGATATTGGAAGCAAAGGTTCTCTGGAAATTCTCTGGATAGGTGTG
AACTGCTGGCTTTCTCATATTGTGTTCTATATTACTATGTTCTGTTCCATTCAA
AAAACGCCTTGACGACCACAGAAGTAAGGAATTGTTGGAGAGAGGTGGCTGCA
AATGTTCTTTTATAGTGTCTGATGCCATCTGCTGGATTCTGTATTGTAGTT
AAAATCCTTCCCTCTCCGGGTGGAAATACCAGACACAATGACTTCTGGATAGTGATT
TTTCTCTCCAGTTAACAGTGTGTTGAATCCAATCCTCTACTCTCACAAACCAACTTT
TTAAGGACAAGTTGAAACAGCTGCTGCACAAACATCAGAGGAATCAATTTCAAAATT
AAAAAAAAAGTTATCTACATCCATTGTGTGGATAGAGGACTCCTCTGGAAACTT
GGGTTTGAACAAAATAACACTTGGAGACAGTATAATGAAACCACTGTTCTAG

TO 87360 9 650

FIG.2

MFFLLHFIVLINVKDFALTQGSMITPSCQKGYFPCGNLTKCLPRAFHCDGKDDCGNGADE
ENCGDTSGWATIFGTVHGNANSVALTQECFLKQYPQCCDCCKETELECNGDLKSVPМИSN
NVTLLSLKKNIHSLPDKVFIKYTKLKKIFLQHNCIRHISRKAFFGLCNLQILYLNHNCI
TTLRPGIFKDLHQLTWLILDDNPITRISQRLFTGLNSLFFLSMVNNYLEALPKQMCQMP
QLNWVDLEGNRICKYLTNSTFLSCDSLTVLFLPRNQIGFVPEKTFSSLKNLGELDLSSNTI
TELSPHLFKDLKLLQKLNLSNPLMYLHKNQFESLKQLOSLDLERIEIPNINTRMFQPMK
NLSHIYFKNFRYCSYAPHVRICMPLTDGISSFEDLLANNILRIFVWVIAFITCFGNLFVI
GMRSFIKAENTTHAMSIKILCCADCLMGVYLFFVGIFDIKYRGQYQKYALLWMESVQCRL
MGFLAMLSTEVSVLLTYLTLEKFLVIVFPFSNIRPGKRQTSVILICIWMAGFLIAVIPF
WNKDYFGNFYGKNGVCFPLYYDQTEDIGSKGYSLGIFLGVMLLAFLIIVFSYITMFCSIQ
KTALQTTEVRNCFGREVAVANRFFFIVFSDAICWIPVFFVKILSLFRVEIPDTMTSWIVI
FFLPVNSALNPILYLTNTFFKDKLKQLLHKHQRKSIFKIKKSLSTSIVWIEDSSSLKL
GVLNKITLGDSIMKPVS

FIG. 3

CCACCGCGTCCGATTACA

FIG. 4

CAATCATTGGATCACTGGACTTCACTGGACTACCTAAAACAGGGGACAGCTTTGGA
AGATGACATCTGCAATGCTTTCATCTTACCAACGGCAAGCCTTCTGCACAGAGAGCA
CAGCAGAATGGCTCCTGTCAGTCATCCAATGGCAGCTGACTATCTACCAACCGTGCT
GAGGACAGCACCAAAAGGTTCCCTCCTCACCACATGCCCTGAAAAGCACATGTGAATT
GTGTATAGTGGGCTGAGGTGAGCTGATCTCTAGCTAATCAACACAACCCACCAACAAAT
GACCACAGGTTGGCACTGTGTGGTCTTCACATCGGGTTGCACTGTCCATGAAATAGAAA
CACTCACAACATCTGATTCACTGCTGCCATAATAACAGAAATCTAACAAACTCTTCCTT
GCCTTTCAATATCAAATAAAACATCAGCATCCTGCTGGATTGATAGCAAAGGATTCC
AAAATATTCTACCCGAAGTCCTCCTGTGAAGGCCGGTGGAGTAGCCACTTGAA
ACAGAACTTCCAACCAACCGAGTTACCATGTCTAACCTATGACCAGAGACTCACACTGATGAAG
CCTCATACCATTGCCTTTGGATTTTATTTAATATCAGAAGAGATGAATTCTTAAGATA
TTTTCTGAAGGTTGCCAGGGCACAACAAATTGGACACTTCACTGCTAAAAGTACA
CTTTAATATTCTAAAGTATAATTCTTAGAGCAGTATCCCTATTGCTGGCAAGTTCTG
CTTCATAAAATATGCAGATAAGAAGTGTAAATGGGATTCAAGAATTATGGTTTATTT
GGGACTGTTGCATACTCACAATGGTTTGTTCATTGTTTTAACAAAAAAAGCAATGA
AGTTGGGGTGGTTTTGAAAACGAAACTGAAAAAAATTATATGTGAAAATGAGAACTG
GGTAATAAAATTATATTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAG

FIG. 5

ATGTTCTTCTACTTCATTTCATCGTTCTGATCAATGTCAAAGATTTGCACTGACTCAA
GGTAGCATGATCACTCCTTCATGCCAAAAGGATATTTCCCTGTGGGAATCTTACCAAG
TGCTTACCCCGAGCTTCACTGTGATGGCAAGGATGACTGTGGAACGGGGCGGACGAA
GAGAACGTGGTACACTAGGGATGGCGACCATATTGGCACAGTGCATGAAATGCT
AACAGCGTGGCCTAACACAGGACTGCTTCTAAAACAGTATCCACAAATGCTGTGACTGC
AAAGAAACTGAATTGGAATGTGTAATGGTACTTAAAGTCTGTGCCGATGATTCTAAC
AATGTGACATTACTGTCTTAAAGAAAACAAATCCACAGTCTTCAGATAAAAGTTTC
ATCAAATACACAAAATTTAAAGATATTCTTCAGCATAATTGCAATTAGACACATATCC
AGGAAAGCATTGGATTATGTAATCTGCAAAATTTAAATTCTAGATGACAATCCAATA
ACCAGAATTTCACAGCGCTGTTACGGGATTAATTCTGTCTATGGTT
AATAACTACTTAGAAGCTTCCCAAGCAGATGTGCCCCAATGCCACTCAACTGG
GTGGATTGGAAAGGCAATAGAATAAGTATCTACAAATTCTACGTTCTGCGAT
TCGCTCACAGTGCCTGCTGCTAGAAATCAAATTGGTTGTTCCAGAGAACATT
TCTTCATTAAAAAATTAGGAGAACTGGATCTGCTAGCAATACGATAACGGAGCTATCA
CCTCACCTTTAAAGACTGAAAGCTCTACAAAAGCTGAACCTGTACATCCAATCCTCTT
ATGTATCTCACAGAACCAAGTGTAAACAACTTCAGTCTAGACCTGGAA
AGGATAGAGATTCCAAATATAAACACACGAATGTTCAACCCATGAAGAATCTTCTCAC
ATTTATTCAAAAACCTTCGATACTGCTCCTATGCTCCCCATGTCGAATATGTATGCC
TTGACGGACGGCATTCTTCATTGAGGACCTTGGCTAACAAATATCCTCAGAATATT
GTCTGGTTATAGCTTCAATTACCTGCTTGGAAATCTTGTGTCATTGGCATGAGATCT
TTCATTAAGCTGAAATACAACACTACGCTATGTCATCAGTCTAGACCTGGCT
TGCCTGATGGGTGTTACTGTTCTTGGCATTTCGATATAAAACCGAGGGCAG
TATCAGAAGTATGCCCTGCTGGATGGAGAGCGTGCAGTGCCGCCTCATGGGTTCTG
GCCATGCTGCCACCGAAGTCTGCTACTGACCTACTTGACTTTGGAGAACGTC
CTGGCATTGTCCTCCCTCAGTAACATTGACCTGGAAAACGGCAGACCTCAGTCATC
CTCATTGCACTGGATGGCGGATTAAATAGCTGTAATTCCATTGGAAATAAGGAT
TATTTGGAAACTTTATGGAAAAATGGAGTATGTTCCACTTATTATGACCAAACA
GAAGATATTGGAAGCAAAGGTATTCTCTTGGAAATTCTCTAGGTGTGAACTTGCTGGCT
TTCTCATATTGTGTTCTCTATATTACTATGTTCTGTTCCATTCAAAAAACGCCCTG
CAGACCACAGAAGTAAGGAAATTGTTTGGAAAGAGAGGGTGGCTGTGCAAATGTTCTT
TTTATAGTGTCTCTGATGCCATCTGCTGGATTCTGTATTGTAGTTAAATCCTTCCA
CTCTCCGGGTGGAAATACAGACACAATGACTCCTGGATAGTGAATTCTTCTTCCA
GTTAACAGTGCTTGAATCCAATCCTCTATAACTCTCACACCAACTTTTAAGGACAAG
TTGAAACAGCTGCTGCACAAACATCAGAGGAAATCAATTCAAAATTAAAAAAAGT
TTATCTACATCCATTGTGTGGATAGAGGACTCCTCTCCCTGAAACTGGGTTTGAAC
AAAATAACACTTGGAGACAGTATAATGAAACCAGTTCTCTAG

FIG. 6

MFFLLHFIVLINVKDFALTQGSMITPSCQKGYFPCGNLTKCLPRAFHCDGKDDCGNGADE
ENCGDTSGWATIFGTVHGNANSVALTQECFLKQYPQCCDCETELECVNGDLKSVPMSN
NVTLLSLKKNKKIHSPLDKVFIKYTKLKKIFLQHNCIRHISRAFFGLCNLQILILDDNPI
TRISQRLFTGLNSLFFLSMVNNYLEALPKQMCAQMPQLNWVDLEGNRKYLTNSTFLSCD
SLTVLFLPRNQIGFVPEKTFSSLKNLGELDLSSNTITELSPHLFKDLKLLQKLNLSNPL
MYLHKNQFESLKQLQSLDLERIEIPNINTRMFQPMKLNLSHIYFKNFRYCSYAPHVRICMP
LTDGISSFEDLLANNILRIFVWVIAFITCFGNLVIGMRSFIKAENTTHAMSIKILCCAD
CLMGVYLFFVGIFDIKYRGQYQKYALLWMESVQCRLMGFLAMLSTEVSVLLLTYLTLEKF
LVIVFPFSNIRPGKRQTSVILICIWMAGFLIAVIPFWNKDYFGNFYGKNGVCFPLYDQT
EDIGSKGYSLGIFLGVNLLAFLIIVFSYITMFCSIQKTAQTLQTEVRNCFGREVAANRFF
FIVFSDAICWIPVFVVKILSLFRVEIPDTMTSWIVIFFLPVNSALNPILYTLTTNFFKDK
LKQLLHKHQRKSIFKIKKSLSTSIVWIEDSSSLKLGVLNKITLGDSIMKPVS

FIG. 7

MFFLLHFIVL INVKDFALTQ GSMITPSCQK GYFPCGNLTK CLPRAFHCDG
KDDCGNGADE ENCGDTSGWA TIFGTVHGN NSVALTQECF LKQYPQCCDC
KETELECVNG DLKSVPMSN NVTLLSLKKN KIHSPLDKVFI KYTKLKKIF
LQHNCIRHIS RKAFFGLCNL QILYLNHNCI TTLRPGIFKD LHQLTWLILD
DNPITRISQR LFTGLNSLFF LSMVNNYLEA LPKQMCAQMP QLNWVDLEGN
RIKYLTNSTF LSCDSLTVLF LPRNQIGFVP EKTFSSLKNL GELDLSSNTI
TELSPHLFKD LKLLQKLNLS SNPLMYLHKN QFESLKQLQS LDLERIEIPN
INTRMFQPMK NLSHIYFKNF RYCSYAPHVR ICMPLTDGIS SFEDLLANNI
LRIFVWVIAF ITCFGNLFVI GMRSFIKAEN TTHAMSIKIL CCADCLMGVY
LFFVGIFDIK YRGQYQKYAL WMESVQCRL MGFLAMLSTE VSVLLLTYLT
LEKFLVIVFP FSNIRPGKRQ TSVILICIWM AGFLIAVIPF WNKDYFGNFY
GKNGVCFPLY YDQTEDIGSK GYSIGIFLGV NLLAFLIIVF SYITMFCSIQ
KTALQTEVR NCFGREVAVA NRFFFIVFSD AICWIPVFVV KILSLFRVEI
PDTMTSWIVI FFLPVNSALN PILYTLTTNF FKDKLKQLLH KHQRKSIFKI
KKKSLSTSIV WIEDSSSLKL GVLNKITLGD SIMKPVS

FIG. 8A

FIG. 8B

FSHR_RAT	~~~~~	
Q64183	~~~~~	
FSHR_EQUAS	~~~~~	
FSHR_CHICK	~~~~~	
LSHR_CALJA	~~~~~	
075473	~~~~~	CPTHCHEPDGRMLLRVDCSDLGLSLEPSNLSVFTSYLDLSMNNISQLLP
HGPRBMY5	~~~~~	MFFLLHF
HGPRBMY5_splice	~~~~~	MFFLLHF
GPCR_LY MST	INDCRDGNVGTDEYYCSNDSECKNFQAAMGFFYCPEERCLAKHLYCDLH.	
FSHR_RAT	~~~~~	
Q64183	~~~~~	
FSHR_EQUAS	~~~~~	
FSHR_CHICK	~~~~~	
LSHR_CALJA	~~~~~	
075473	~~~~~	NPLPSLRFLEELRLAGNALTYIPKGAF TGLYSLKVLMLQNNQLRHVPTEA
HGPRBMY5	IVLINVKDFALTQGSMITPSCQKGYFPCGNLT KCLPRAFHCDGKDDCGNG	
HGPRBMY5_splice	IVLINVKDFALTQGSMITPSCQKGYFPCGNLT KCLPRAFHCDGKDDCGNG	
GPCR_LY MST	PDCINGED...EQSCLAPPKCSQDEFQCHH.GKCIPISKRCDSVHDCVDW	
FSHR_RAT	~~~~~	
Q64183	~~~~~	
FSHR_EQUAS	~~~~~	
FSHR_CHICK	~~~~~	
LSHR_CALJA	~~~~~	
075473	~~~~~	LQNLRLSLSLRLDANHISYVPPSCFSGLHSLRHLWLDDNALTEIPVQA FR
HGPRBMY5	ADEENCGDTSGWATIFGTVHGNANSVALTQEC.FLKQYP....QCCD..	
HGPRBMY5_splice	ADEENCGDTSGWATIFGTVHGNANSVALTQEC.FLKQYP....QCCD..	
GPCR_LY MST	SDEMNCENHQCAANMKSCLSGH C..IEEHKWCNFHRECPDGSDEKDCDPR	
FSHR_RAT	~~~~~	MALLLVSILL...AFLGTGSGCHHWL
Q64183	~~~~~	MALLLVSILL...AFLGTGSGCHHWL
FSHR_EQUAS	~~~~~	MALLLVSILL...AFLSLGSGCHHQV
FSHR_CHICK	~~~~~	MSLGLTCLL...ILLASCSGQOHHT
LSHR_CALJA	~~~~~	MKQPLLALQLLKLLL LLL...PLPPLPRA LREAR
075473	~~~~~	SLSALQAMTLALNKIHHIPDYAFGNLSSLIVV LHLHN RRIHSLGK KCFD GL
HGPRBMY5	...CKETELECVNG...DLKSVP MISNNVTLLSILKKNKT...HSLPD...	
HGPRBMY5_splice	...CKETELECVNG...DLKSVP MISNNVTLLSILKKNKT...HSLPD...	
GPCR_LY MST	PVCEANQFRCKNGQCIDPLQVCVKGDKYDGCADQSHLINC SQHICLEGQF	
FSHR_RAT	CHCSNRVFLCQDSKVTEIPD LPR..NAIELRFVLT KLRVIPKG SFAGFG	
Q64183	CHCSNRVFLCQDSKVTEIPD LPR..NAIELRFVLT KLRVIPKG SFAGFG	
FSHR_EQUAS	CHYSNRVFLCQESKVTEIPSD LPR..NALELRFVLT KLRVIPKG AFSGFG	
FSHR_CHICK	CLCEGRI FICQ EIKVVQI PRD IPT..NATELRFVLT KMRVIPKG AF TGLH	
LSHR_CALJA	C.CPEPC.NCTPDGALRC PGP.GA..GLTRLSIAYLPVKVIPSQA RGLN	
075473	..HSLETLDL.NYNNI D E FPTA IRTLSNLKELGFH SNNI RSIPEKA FVG NP	
HGPRBMY5	...KMF.IKYTK.....LKKIIFIQH.NCIRHISRKAFFGL	
HGPRBMY5_splice	...KMF.IKYTK.....LKKIIFIQH.NCIRHISRKAFFGL	
GPCR_LY MST	RCRKSF CINOTKVCD.....GTVDCLQGMWDEN.NC.RYWCPHG.QAII	
FSHR_RAT	DLEK I.EISQNDVLEVIEADVFSNLPKLHEIRIEKANNL L YINPEAFQNL	
Q64183	DLEK I.EISQNDVLEVIEADVFSNLPKLHEIRIEKANNL L YINPEAFQNL	
FSHR_EQUAS	DLKK I.EISQNDVLEVIEANVFSNLPKLHEIRIEKANNL EYIDHD A FQNL	

FIG. 8C

Fig. 8D

HGPRBMY5	NNILRIFVWVIAFITTCFGNLFVIGMRSFIKAENTTHAMSTIKILCCADCLM
HGPRBMY5_splice	NNILRIFVWVIAFITTCFGNLFVIGMRSFIKAENTTHAMSTIKILCCADCLM
GPCR_LYMS	NHVLRVSIWVIGVIALVGNFVVTIFWRVRDFRGGKVHSFILETNLAIGDFLM
FSHR_RAT	YNILRVLIFIWISILAITGNTTTLVVLTTSQYKLTVPRLMCNLAFADLCI
Q64183	YNILRVLIFIWISILAITGNTTTLVVLTTSQYKLTVPRLMCNLAFADLCI
FSHR_EQAS	YDILRVLIFIWISILAITGNIIVLVLILITSQYKLTVPRLMCNLAFADLCI
FSHR_CHICK	YNILRVLIFIWIFINILAITGNTTVLITLISQYKLTVPRLMCNLAFADLCI
LSHR_CALJA	YDFLRVLIFIWILINILAIMGNMTVLFULLTSRYKLTVPRLMCNLAFADLCI
075473	GWLRIGVWTIAVLAITCNALVTSTVFRSPLYTSPIKLIGVIAAVNMLT
HGPRBMY5	GYLFFFVGIFDIKYRGQYQKYALLWMESEVQCRLMGFLAMLSTEVSLLLLT
HGPRBMY5_splice	GYLFFFVGIFDIKYRGQYQKYALLWMESEVQCRLMGFLAMLSTEVSLLLLT
GPCR_LYMS	GYLLEIATADTYYRGVYISHDENWKQSGLQFAGFVSTESSELSVLTLS
FSHR_RAT	GYLLEIATASVDIHTKSQYHNYAIDWQTGAGGDAAGFTTVFASELSVYTLT
Q64183	GYLLEIATASVDIHTKSQYHNYAIDWQTGAGGDAAGFTTVFASELSVYTLT
FSHR_EQAS	GYLLEIATASVDIHTKSQYHNYAIDWQTGAGGDAAGFTTVFASELSVYTLT
FSHR_CHICK	GYLLEIATASVDIQTKSRYNNYAIDWQTGAGGONAAGFTTVFASELSVYTLT
LSHR_CALJA	GYLLEIATASVDSQTKGQYNNHAIDWQTGSGONTAGFTTVFASELSVYTLT
075473	GVSSAVLAGVDAFTEGSFARHGAWENGVGCHVIGFLSTFASESSVELLT
HGPRBMY5	YLTLEKFLVIVFPFS.NIRPGKRQTSVILICIWMAFLIAVIPFWNKDYF
HGPRBMY5_splice	YLTLEKFLVIVFPFS.NIRPGKRQTSVILICIWMAFLIAVIPFWNKDYF
GPCR_LYMS	TITLDRLICILFPLR.RTRLGLRQAIIVMSCIWVLVFLIAVIPLLGFSYF
FSHR_RAT	AITLERWHTITHAMQLECKVQLRHAASVMVLGWIFAFAAALFPFLFGIIS.
Q64183	AITLERWHTITHAMQLECKVQLRHAASVMVLGWIFAFAAALFPFLFGIIS.
FSHR_EQAS	AITLERWHTITHAMQLECKVQLRHAASVMVLGWIFFGVGVLIPFLFGIIS.
FSHR_CHICK	VITLERWHTITIYAMQLNRKVRLRHAIVIMVFGWMFAFTVAVIIPFLFGIIS.
LSHR_CALJA	VITLERWHTITIYATHLDQKLRLRHAILEMIGWIFSSLIAMIPFLVGVSN.
075473	LAALERGFWSVKYSAKFTKAPFSSLKVITLICALLALTMAAVPLLGGSK.
HGPRBMY5	GNFYGKNGVCFPLYYDQTEDIGSKGYSLGIFLGVNLLAFLITIVFSYITMF
HGPRBMY5_splice	GNFYGKNGVCFPLYYDQTEDIGSKGYSLGIFLGVNLLAFLITIVFSYITMF
GPCR_LYMS	ENFYGRSGVCLALHVTDPDRPGWE.YSVGVFTILLNLLSFLVIASSYIWMF
FSHR_RAT	...YMKVSICLPMDDSP...SQLYVMMALLIV.LNVLAFVVICGCYTHIY
Q64183	...YMKVSICLPMDDSP...SQLYVMMALLIV.LNVLAFVVICGCYTHIY
FSHR_EQAS	...YMKVSICLPMDDSP...SQLYVMSLLIV.LNVLAFVVICGCYTHIY
FSHR_CHICK	...YMKVSICLPMHETPF...SQAYVIFLLIV.LNVLAFVVICCYTCIY
LSHR_CALJA	...YMKVSICFPMDDVETL...SQIYDITLIL.LNVAWAFTHICACYIKIY
075473	...YGASPIICLPLPFGEPS...TMGYVVALIL.LNSLCFLMMTIAYTKLY
HGPRBMY5	CSIQKT..ALOTTEVRNCFGREVAVANRFFFIVFSDAIICWIPFVVKILS
HGPRBMY5_splice	CSIQKT..ALOTTEVRNCFGREVAVANRFFFIVFSDAIICWIPFVVKILS
GPCR_LYMS	SVAKKTRSAVRTAESKN....DNAMARRMTIIVMTDFCCWVPIIVLGFVS
FSHR_RAT	LIVVRNPTIVSSSSDTK.....IAKRMATLIFTDFLCMAPISFFAISA
Q64183	LIVVRNPTIVSSSSDTK.....IAKRMATLIFTDFLCMAPISFFAISA
FSHR_EQAS	LIVVRNPTIVSSSSDTK.....IAKRMATLIFTDFLCMAPISFFCISA
FSHR_CHICK	FTVRNPNTIVSSNSDTK.....IAKRMATLIFTDFLCMAPISFFAISA
LSHR_CALJA	FAVRNPELMATNKDTK.....IAKRMATLIFTDFTCMAPISFFAISA
075473	CNLDKGDL.ENIWDGS.....MVKHTIAALLIFTNCILNCPVAFLSFSS

FIG. 8E

HGPRBMY5	LFRVE. IPDTMTSWIVIFFLPVNSALNPILYLT	TNF	FKDKLKQLIHKHQ																		
HGPRBMY5_splice	LFRVE. IPDTMTSWIVIFFLPVNSALNPILYLT	TNF	FKDKLKQLIHKHQ																		
GPCR_LYMST	LAGAR. ADDQVYAWIAFVLPINSA	NPV	YTESTAPFLGNVRKRA																		
FSHR_RAT	SEKVPLITVSKAKI	LLVLF	PINS	CANPFLYAI	FTKN	FRRDF	FILL	SKFG													
Q64183	SLKVPLITVSKAKI	LLVLF	PINS	CANPFLYAI	FTKN	FRRDF	FILL	SKFG													
FSHR_EQUAS	SLKVVALITVSKSKI	LLVLF	PINS	CANPFLYAI	FTKN	FRRDF	FILL	SKFG													
FSHR_CHICK	SLRVPLITVSKSKI	LLVLF	PINS	CANPFLYAI	FTKT	FRRDF	FILL	SKFG													
LSHR_CALJA	AFKMP	LLV	F	PINS	CANPFLYAI	FTKT	FRRDF	FILL	SKFG												
O75473	LIN	TFI	SPEVIKFT	LLV	VV	P	PA	CN	PILLY	IL	FNP	HKED	.LVSLRK..								
HGPRBMY5	RKSTFKI...	KKKSL...	ST	SIVWIED	SSSL	KLG	VLN	KI	.TLGDS	.IMKP											
HGPRBMY5_splice	RKSTFKI...	KKKSL...	ST	SIVWIED	SSSL	KLG	VLN	KI	.TLGDS	.IMKP											
GPCR_LYMST	KSF	IHSFTGDTKHSYVDDG	T	THSYCEKK	SPYRQ	LELK	R	LSLN	SS...	PP											
FSHR_RAT	CYEMQ	QAQIY	R	FTETSS	..	A	THNFHARK	SHC	SSAPR	..	VIN	..	SYVLVP								
Q64183	CYEMQ	QAQIY	R	FTETSS	..	A	THNFHARK	SHC	SSAPR	..	VIN	..	SYVLVP								
FSHR_EQUAS	CYEMQ	QAQTY	R	FTETSS	..	TGHISHPKNG	PCPPTPR	VTINGANC	I	LVP									
FSHR_CHICK	CCE	MOAQIY	R	FTETSS	..	SAHNFHTRNG	HYPTASK	NSDGTIY	S	LVP									
LSHR_CALJA	CCKHRAE	LY	RRKDF	S	..	A	YTSNYKNG	FTGSSK	..	PSQST	..	LKLP									
O75473	...	OTYVWTR	SKHPSL	MS	IN	SDD	VE	KQSCD	STQALV	TFT	SSS	ITY	DL	PP							
HGPRBMY5	VS~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
HGPRBMY5_splice	VS~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
GPCR_LYMST	MY	YNT	E	LHS	D	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
FSHR_RAT	L	N	H	S	S	Q	N	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
Q64183	L	N	H	S	S	Q	N	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
FSHR_EQUAS	L	S	H	L	A	Q	N	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
FSHR_CHICK	L	N	H	L	N	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
LSHR_CALJA	A	L	H	C	Q	G	T	A	L	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~							
O75473	SS	V	P	S	P	A	P	V	T	E	S	H	L	S	V	A	F	V	P	C	L

FIG. 9A

1 MFFLLHFIVLINVKDFA
|
1 MFFLLHFIVLINVKDFA
|
51 KDDCGNGADEENCGDTSGWATIFGTVHGNANSVALTQECFLKQYPQCCDC 100
|
51 KDDCGNGADEENCGDTSGWATIFGTVHGNANSVALTQECFLKQYPQCCDC 100
101 KETELECNGDLKSVP
|
101 KETELECNGDLKSVP
151 LQHNCIRHISRKAFFGLCNLQI
|
151 LQHNCIRHISRKAFFGLCNLQI.....LILD 176
201 DNPITRISQRLFTGLNSLFFLSMVNNYLEALPKQMCAQMPQLNWVDLEGN 250
|
177 DNPITRISQRLFTGLNSLFFLSMVNNYLEALPKQMCAQMPQLNWVDLEGN 226
251 RIKYLTNSTFLSCDSLTVLFLPRNQIGFVPEKTFSSLKNLGEDLSSNTI 300
|
227 RIKYLTNSTFLSCDSLTVLFLPRNQIGFVPEKTFSSLKNLGEDLSSNTI 276
301 TELSPHLFKDLKLLQKLNLSNP
|
277 TELSPHLFKDLKLLQKLNLSNP
351 INTRMFQPMKNLSHIYFKNFRYCSYAPHV
|
327 INTRMFQPMKNLSHIYFKNFRYCSYAPHV
401 LRIFVWVIAFITCFGNL
|
377 LRIFVWVIAFITCFGNL
451 LFFVGIFDIKYRGQYQKYALLWMESVQC
|
427 LFFVGIFDIKYRGQYQKYALLWMESVQC
501 LEKFLVIVFPFSNIRPGK
|
477 LEKFLVIVFPFSNIRPGK
551 GKNGVCFPLYYDQTEDIGSKG
|
527 GKNGVCFPLYYDQTEDIGSKG

FIG. 9B

601 KTALQTTEVRNCFGREVAVANRFFFIVFSDAICWIPFVVKILSLFRVEI 650
|||||
577 KTALQTTEVRNCFGREVAVANRFFFIVFSDAICWIPFVVKILSLFRVEI 626
|||||
651 PDTMTSWIVIFFLPVNSALNPILYTLTTNFFKDKLKQLLHKHQRKSIFKI 700
|||||
627 PDTMTSWIVIFFLPVNSALNPILYTLTTNFFKDKLKQLLHKHQRKSIFKI 676
|||||
701 KKSLSTSIVWIEDSSSLKGVLNKITLGDSIMKPVS 737
|||||
677 KKSLSTSIVWIEDSSSLKGVLNKITLGDSIMKPVS 713

FIG. 10

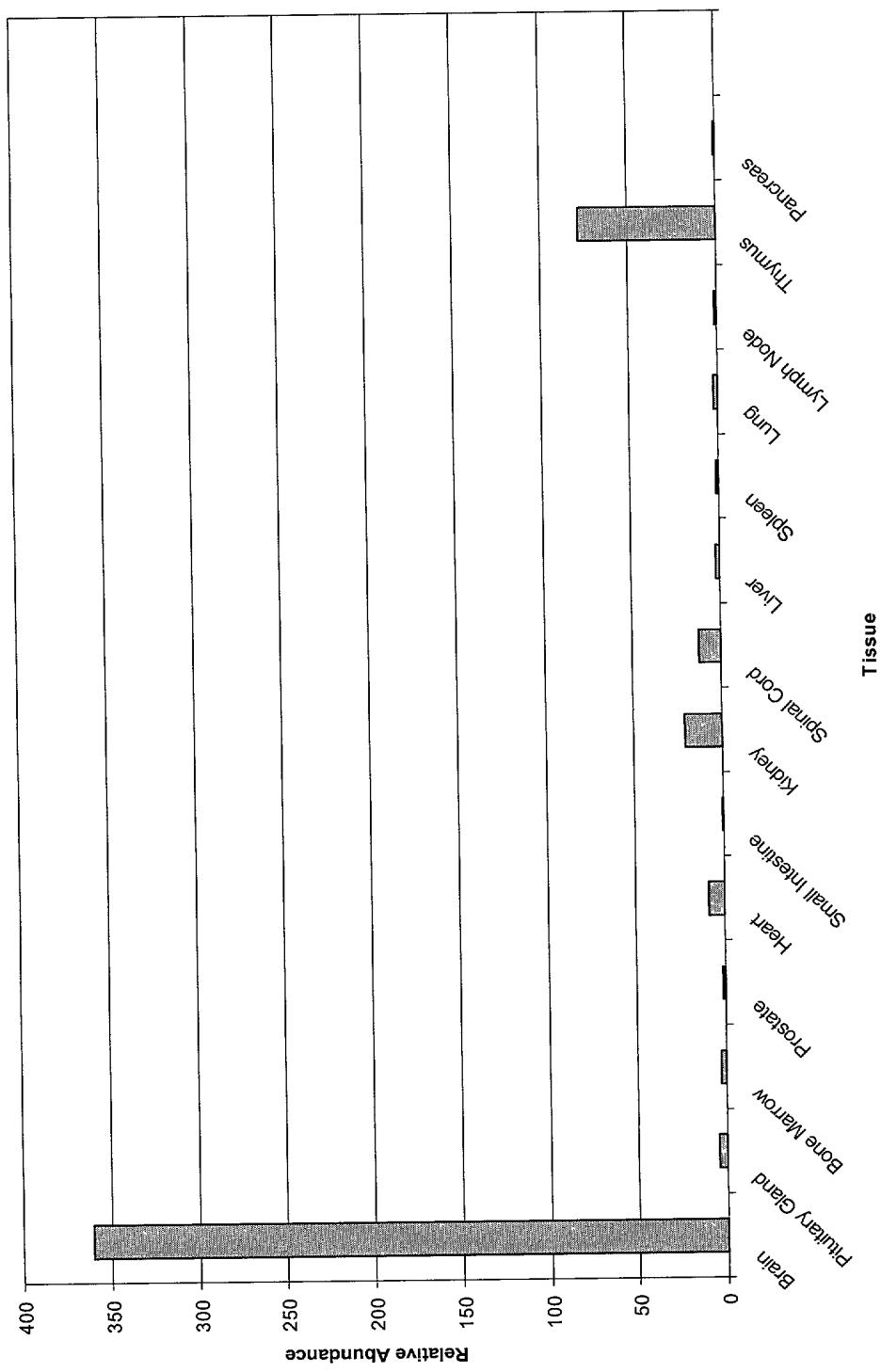


FIG. 11

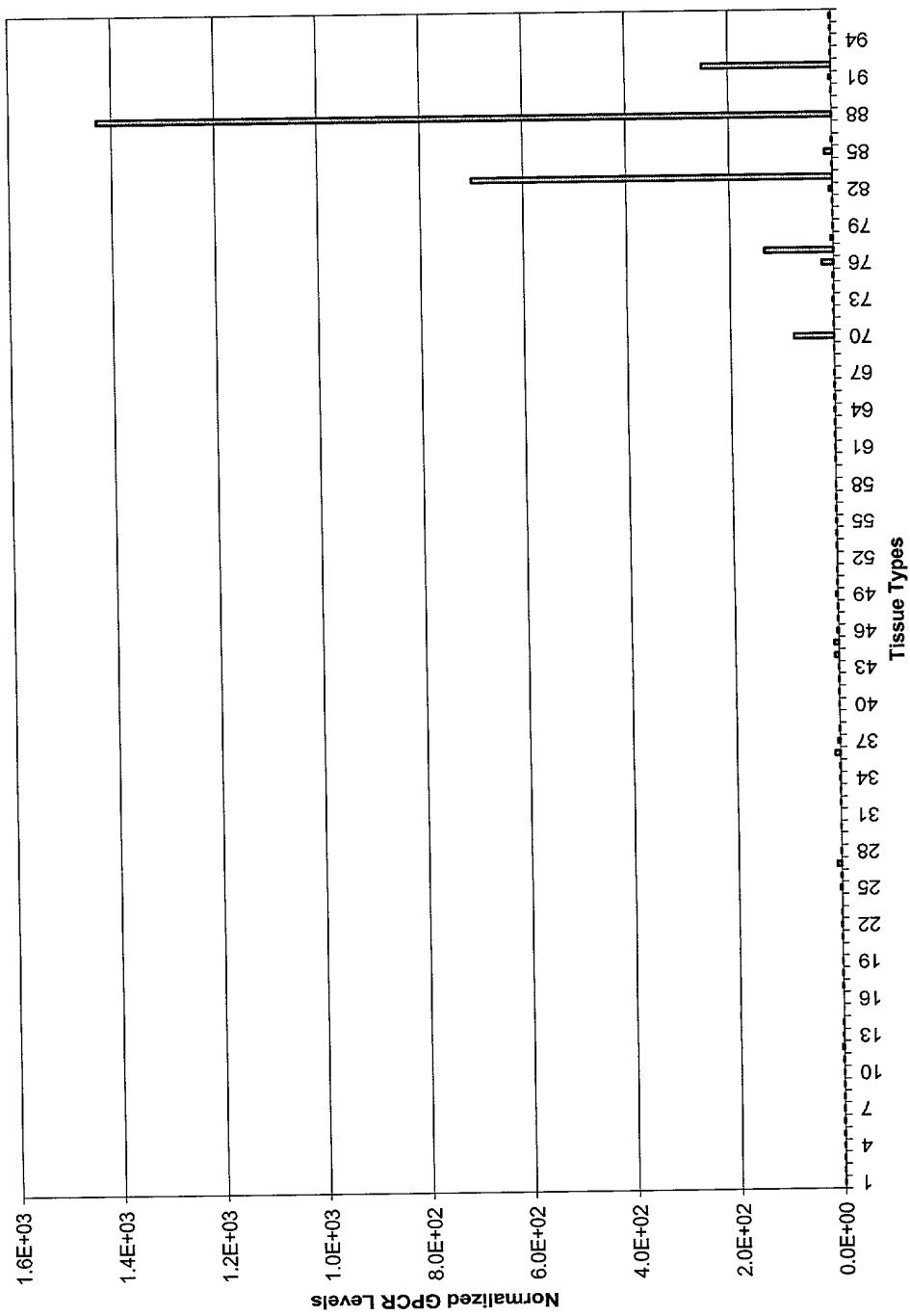


FIG. 12

